FACT SHEET

PROPOSED AMENDMENTS TO AIR TOXICS STANDARDS FOR COKE OVEN BATTERIES

ACTION

- On July 29, 2004, the Environmental Protection Agency (EPA) proposed amendments to further reduce emissions of toxic air pollutants from coke oven batteries. This proposed amendment would include more stringent requirements for certain by-product coke oven batteries to address health risks remaining after implementing EPA's October 1993 emissions standards. This proposal would also amend the 1993 standards for emissions of hazardous air pollutants from non-recovery coke oven batteries.

- Coke oven batteries convert coal to coke which is used to produce iron at steel mills and foundries. A battery consists of a group of ovens connected by common walls.

- The proposed amendments would apply to coke oven emissions from nine batteries at five coke plants. EPA's 1993 emissions standards require these facilities to utilize maximum achievable control technology (MACT) to reduce toxic air emissions. These batteries are known as MACT track batteries.

- There are two types of coke oven batteries each utilizing a unique process to produce coke. One is known as a "by-product coke oven battery" and, the other is known as a "non-recovery battery".

By-product Coke Oven Batteries

- EPA proposed these amendments for by-product coke oven batteries to address health risks remaining after implementation of the 1993 standards. The proposal would require these batteries to meet more stringent visible emission limits (based on 30-day averages) using a combination of pollution prevention and work practices.
    - Allowable visible emissions from coke oven doors would be reduced from 5.5 to 4.0 percent leaking doors for foundry coke batteries, and from 5.0 to 3.3 percent leaking doors for other batteries.
- Allowable visible emissions from topside port lids (covers placed over openings through which coal is added to the oven) would be reduced from 0.6 to 0.4 percent leaking lids.
- Allowable visible emissions from offtake systems (piping systems that provide passage for raw coke oven gas) would be reduced from 3.0 to 2.5 percent leaking offtake systems.

Non-recovery Coke Oven Batteries

- EPA developed the proposed requirements for charging emissions from new or reconstructed non-recovery coke oven batteries to reflect changes that have occurred in emission control practices during the past 8 years. The proposed amendments would:
- establish a 20 percent opacity limit for fugitive emissions from charging (filling) the ovens,
- add an emissions limit of 0.0081 pounds of particulate matter per ton of dry coal and a 10 percent opacity limit for charging emission control devices, and
- require owners to implement work practice standards designed to improve control of charging emissions.

- Other proposed amendments would add work practice requirements to supplement the current visible emissions limit for door leaks. The proposed amendments would apply to all non-recovery batteries.

- EPA will accept comment on the proposed amendments for 60 days after publication in the *Federal Register.*

HEALTH AND ENVIRONMENTAL BENEFITS AND COSTS

- Coke oven emissions include polycyclic organic matter, polycyclic aromatic hydrocarbons, benzene, and other air toxics that are associated with a variety of adverse health effects including cancers and disorders of the blood, central nervous system, and respiratory system.

- EPA's risk estimates assume that facilities emit air toxics at the limits allowed by the MACT standard and that people are exposed for 70 years at their current place of residence. Actual emissions are lower, and people generally move several times during their lives. Therefore, actual risk levels will be lower.

- Currently, EPA estimates that 97% of the approximately 4 million people living near these facilities have estimated cancer risks less than 1 in a million. The proposed amendments would ensure that an additional 100,000 people would have estimated cancer risks less than 1 in a million.

- Most by-product batteries are achieving the proposed emission limits. For this reason, only small additional costs would be incurred by these batteries. The estimated costs for non-recovery batteries (about $28,300 in annual costs) are attributable to monitoring, recordkeeping, and reporting requirements needed to assure continuous compliance.

- Even though most existing facilities are already reducing emissions beyond the limits required by the 1993 regulation, the proposal would ensure that environmental protection, beyond what is currently required, will be maintained.

BACKGROUND

- In the 1990 Clean Air Act Amendments, Congress directed EPA to use a "technology-based" approach to reduce emissions of toxic air pollutants from "major sources" of air pollution. Air toxics are known to cause cancer and other serious health problems. Major sources emit at least 10 tons per year of a single toxic air pollutant or at least 25 tons per year of a combination of air toxics.

- Following implementation of the technology based standards, the Act further directs EPA to use a risk-based approach to address any remaining, or residual risks.

- Under the "technology-based" approach, EPA developed standards for controlling the emissions of air toxics from sources in an industry group (or "source category"). These maximum achievable control technology or "MACT" standards are based on emissions levels that are already being achieved by the better-controlled and lower-emitting sources in an industry.

- The Clean Air Act [Section 112(d)(6)], directs EPA to review MACT standards at least every 8 years, and revise them, if necessary, to account for developments in practices, processes, and control technologies. Section 112(f) of the Clean Air Act also requires EPA to assess the remaining health risks from each source category to determine whether the MACT standards protect public health with an ample margin of safety.

- As required by the Clean Air Act, the 1993 standards for coke oven batteries included what EPA refers to as two "tracks" of technology-based standards. The Clean Air Act specified different compliance timetables depending on the track chosen by each facility owner. These tracks are referred to as the MACT track and the lowest achievable emissions rate (LAER) track.

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The coke oven batteries covered under the LAER track are those that voluntarily agreed to meet more stringent technology-based standards beginning in 1993. The LAER standards tighten over time with the final standards becoming effective in 2010. The LAER track batteries are not required to meet residual risk standards until 2020. The proposed amendments would not set standards for LAER track batteries.

- The proposed limits for by-product batteries on the MACT track would replace the less stringent 1993 limits and are equivalent to the limits that will become effective on January 1, 2010 for batteries on the LAER track.

FOR MORE INFORMATION

- To download a copy the proposed amendments, go to EPA's World Wide Web site at http://www.epa.gov/ttn/oarpg under newly proposed or issued rules.

- For further information about the proposed amendments, contact Ms. Lula Melton of EPA's Office of Air Quality Planning and Standards at (919) 541-2910 or melton.lula@epa.gov.

- Send any comments on the proposed rulemaking (in duplicate if possible) to: NESHAP for Coke Oven Batteries Docket, EPA Docket Center (Air Docket), U.S. EPA West (6102T), Room B-108, 1200 Pennsylvania Avenue, NW, Washington DC 20460, Attention Docket No. OAR-2003-0051. You may also submit comments and data by electronic mail (e-mail) to: a-and-r-docket@epa.gov, Attention Docket No. OAR-2003-0051. Submit electronic comments in WordPerfect (R) file format. Electronic comments and data must note the docket number (Docket No. OAR-2003-0051). You may file electronic comments online at many Federal Depository Libraries. Do not submit confidential business information (CBI) by e-mail. See the *Federal Register* notice for more information on how to handle the submittal of CBI.